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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,227	08/20/2004	Alban Couturier	Q83028	2136
72875	7590	07/09/2008		
SUGHRUE MION, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037				
EXAMINER				
CHRISS, ANDREW W				
ART UNIT		PAPER NUMBER		
2619				
NOTIFICATION DATE		DELIVERY MODE		
07/09/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/505,227

Applicant(s)

COUTURIER, ALBAN

Examiner

Andrew Chriss

Art Unit

2619

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 28, 2008 has been entered.

Response to Amendment

2. Applicant's amendment, filed March 28, 2008 has been entered and carefully considered. Claims 1, 9, and 14 are amended, and Claims 1-14 are currently pending.
3. In light of Applicant's amendment to Claims 1 and 9, rejection of said claims under 35 U.S.C. 112, second paragraph, is withdrawn.
4. In light of Applicant's amendment to independent claims 1, 9, and 14, rejection of Claims 1-3, 5, 6 8-11, and 13 under 35 U.S.C. 102(e) and Claims 4, 7, 12, and 14 under 35 U.S.C. 103(a) is withdrawn.

Specification

5. The disclosure is objected to because of the following informalities: The specification does not provide support for the following claim limitation in Claims 8 and 13: "correlation means are adapted to anticipate microflows of return packets and to consider them to determine the correlated resource reservation requests." Applicant's specification discloses the control

system being adapted to anticipate return packets (page 4, lines 26-30), but does not disclose this function being performed by a correlation means or that the return microflows are correlated.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. **Claims 1-14** rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: Claim 1 cites “means for receiving,” “control means,” and “means for correlating.” Claims 9 and 14 cites “means for receiving” and “means for communicating.” However, Applicant’s specification does not disclose as to what said means comprise, per 35 U.S.C. 112, sixth paragraph. Therefore, Examiner is unable to determine the scope of the claimed means. Claims 2-8 and 10-13 depend on Claims 1 and 9, respectively, and fail to resolve the deficiencies therein.
8. **Claims 2, 3, 8, 9, 11, and 13** rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claims 2 and 9, the claim language “wherein the correlation is effected by comparing the 5-tuples of said microflows” is indefinite with regards to what said 5-tuples are being compared to.

Regarding Claims 3 and 11, the claim language “wherein the correlation is effected by comparing the addresses of the sender and the addressee” is indefinite with regards to what said addresses are being compared to. Further, it is unclear if said addresses are embedded in data, (e.g., quality of service request, microflow).

Regarding Claim 7, claim language “wherein the control means are such that correlated reservation requests share the same bandwidth” is unclear with respect to the function of the control means. Examiner assumes that the control means to be a physical structure, and the language “are such correlated reservations requests share the same bandwidth” appears to be describing a functionality of the control means, and not appear to be a structural property of the control means.

Regarding Claims 8 and 13, claim language “correlation means are adapted to anticipate microflows of return packets and to consider them to determine the correlated resource reservation requests” is indefinite regarding the claimed function of the correlation means. It is unclear whether the return packets are correlated with an existing set of correlated resource reservation requests or if a new set of correlated resource reservation requests is created for the return flows.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. **Claims 1, 5-7, 9, 12 and 14** rejected under 35 U.S.C. 102(e) as being anticipated by Oosthoek et al (United States Patent Application Publication US 2002/0156599 A1), hereinafter Oosthoek.

Regarding Claims 1, 9, and 14, Oosthoek discloses an ingress node 16 that performs functionalities equivalent to Applicant's claimed means for receiving, control means, means for correlating, and means for communicating. Specifically, the ingress node comprises a per aggregate flow QoS management system (paragraph 0019), wherein an ingress node accepts flows of traffic to be aggregated in respective reservation states or classes (paragraph 0018). Further microflows are associated with requests comprising performance demands, such as bandwidth assurance, delay, and packet losses (paragraph 0017). When resource requests associated with individual microflows are received at an ingress node, they are grouped together for a resource request for an interior network (paragraph 0020). The reservation request on the internal network specifies an aggregated state to which it pertains, such as a DiffServ DSCP service class (paragraph 0020). The reservation request is carried out by sending a single resource request through the interior network to an egress node (paragraph 0020). A decision is then made as to whether to reserve the resources associated with the request (paragraphs 0020 and 0021).

Regarding Claim 5, Oosthoek discloses granting a resource request if the resources are available, and denying the request if resources are not available (paragraphs 0020 and 0021), equivalent to Applicant's claimed "atomic" network monitoring.

Regarding Claim 6, Oosthoek discloses determining whether resources are available prior to making a change in a specified aggregated reservation state (paragraph 0020).

Regarding Claims 7 and 12, Oosthoek discloses an edge-to-edge aggregated reservation request wherein the individual flows are transparent to interior nodes on the network (paragraph 0020), equivalent to the claimed limitation of sharing bandwidth among correlated quality of service requests.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. **Claims 2-4, 10, and 11** rejected under 35 U.S.C. 103(a) as being unpatentable over Oosthoek in view of Bolding et al (United States Patent 7,722,651), hereinafter Bolding.

Regarding Claims 2, 3, 10, and 11, Oosthoek discloses all of the limitations of Claims 1 and 9, as described above. However, Oosthoek may not disclose correlating microflows by

comparing 5-tuples or source/destination addresses. In the same field of endeavor, Bolding discloses identifying a flow through a network via a 5-tuple, comprising a source and destination IP address, source and destination port numbers, and a protocol (column 11, lines 6-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the RSVP reservation disclosed in Bolding with the aggregated resource reservation requests disclosed in Oosthoek in order to reserve network resources on behalf of a multimedia server lacking RSVP capabilities.

Regarding Claim 4, Oosthoek discloses all of the limitations of Claims 1 and 9, as described above. However, Oosthoek may not disclose a control means comprising a software module remote from a correlation means communicating via a communication protocol. In the same field of endeavor, Bolding discloses a router comprising separate modules (Figure 3), including a differentiated service entity 332 (correlating means) remote from an RSVP transmitter proxy 318 (control means). Further, Bolding discloses that the RSVP transmitter proxy 318 operates in accordance with RFC 2205 (column 7, lines 22-26), which is known to one of ordinary skill in the art to comprise program instructions. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the RSVP reservation disclosed in Bolding with the aggregated resource reservation requests disclosed in Oosthoek in order to reserve network resources on behalf of a multimedia server lacking RSVP capabilities.

14. **Claims 8 and 13** rejected under 35 U.S.C. 103(a) as being unpatentable over Oosthoek in view of Mohaban et al (United States Patent 6,788,647), hereinafter Mohaban. Oosthoek discloses all of the limitations of Claims 1 and 9, as described above. However, Oosthoek may

not disclose anticipating microflows of return packets and to consider them to determine the correlated resource reservation requests. In the same field of endeavor, Mohaban discloses bi-directional QoS treatment for network data flows, wherein a packet is identified by its 5-tuple (source and destination IP address, source and destination port, and protocol) and given a quality of service treatment if a node determines that the packet is part of an already observed packet flow (column 8, lines 40-60; Figure 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the bi-directional QoS treatment disclosed in Mohaban with the aggregated resource reservation disclosed in Oosthoek in order to provide quality of service for bi-directional communications, such as symmetrical video conference call.

Response to Arguments

15. Applicant's arguments with respect to rejection of claims 1-6 and 8-11 under 35 U.S.C. 102(e) and rejection of Claims 4, 7, 12, and 14 under 35 U.S.C. 103(a) have been considered but are moot in view of the new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Chriss whose telephone number is (571)272-1774. The examiner can normally be reached on Monday - Friday, 7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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7/3/08